

PATENT

Atty. Dkt. No. BOUL/0007.Y1

REMARKS

This is intended as a full and complete response to the Final Office Action dated August 19, 2005, having a shortened statutory period for response set to expire on November 19, 2005. Claims 36-46 are pending in the application. Please reconsider the claims pending in the application for reasons discussed below.

Claim Rejections Under 35 U.S.C. § 112

The Examiner rejected claims 42 and 45 under 35 U.S.C. § 112, second paragraph. In response, Applicant has cancelled claims 42 and 45, thereby obviating the rejection.

Claim Rejections Under 35 U.S.C. § 103(a)

The Examiner rejected claim 36 as being obvious over *Wainwright* (U.S. Patent No. 4,682,156) in view of *Terhune, et al.* (U.S. Patent No. 4,628,252). According to the Examiner, *Wainwright* discloses all the limitations of claim 36 except for a failure element that comprises a number of different materials arranged in series and/or in parallel. As such, the Examiner attempts to supplement this missing limitation by using *Terhune*. Applicant respectfully traverses the rejection.

As correctly indicated by the Examiner, *Wainwright* does not disclose a failure element that comprises a number of different materials arranged in series and/or in parallel as recited in claim 36. *Terhune* also does not disclose a failure element that comprises a number of different materials. Rather, it is quite clear that the failure elements (26, 28 and 30) disclosed in *Terhune* must be of the same material. As discussed in col. 6, lines 20-30 of *Terhune*, the three elements (26, 28 and 30) are provided to add a degree of redundancy in case one of the failure elements should fail for some unforeseen reason. As set forth in *Terhune*, the presence of a contaminant will cause corrosion cracking to occur in all of the elements (26, 28 and 30). As soon as one element fails, the other two elements (also weakened to some extent by stress corrosion cracking) will immediately experience increased stress and will fail. However, should an element (26, 28 and 30) fail for some reason other than the presence of a

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contaminant, the two remaining elements will not have been weakened by corrosion cracking and are designed to be strong enough not to fail. Thus, all three elements (26, 28 and 30) must be of the same material. If this were not the case, then in the presence of a contaminant, only one of the elements would fail, (i.e., the element designed to fail in the presence of that particular contaminant). The remaining two elements would not be subject to stress corrosion cracking and would therefore be strong enough to resist failure. Moreover, if the elements (26, 28 and 30) of *Terhune* are made of different materials, the sensor would never fail in the presence of a single contaminant and therefore the device would therefore be useless. Therefore, *Terhune* fails to disclose a failure element that comprises a number of different materials. This failure precludes the combination of *Wainwright* and *Terhune* from rendering claim 36 obvious. For these reasons, Applicant submits that claim 36 is in condition for allowance and respectfully requests withdrawal of the § 103(a) rejection. Additionally, claims 37-41, 43-44, and 46 depend from claim 36 and are allowable for at least the same reasons as claim 36.

Conclusion

In conclusion, the references cited by the Examiner, alone or in combination, do not teach, show, or suggest the invention as claimed.

Having addressed all issues set out in the Final Office Action, Applicant respectfully submits that the claims are in condition for allowance and respectfully requests that the claims be allowed.

Respectfully submitted,

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